

Cable Installation Accessories

Cable Hoisting and Attachment

SnapStak™ Hangers

New design increases stack height

SnapStak hangers have become the industry standard for maximizing space utilization on crowded towers and now that utility is further expanded with the next generation that provides the ability to add an additional cable run to the stack. This new capability is enabled by a support beam that is inserted into the base of each hanger giving the strength to handle an additional cable run. Sold in kits of 10.

SnapStak hangers can be snapped into 3/4 inch through holes in the tower's cable ladder or used in conjunction with a variety of mounting accessories for rooftops, buildings, and water towers. Stainless steel construction of SnapStak hangers provides exceptional integrity in corrosive environments and extreme weather conditions.

SnapStak Hanger benefits:

- Fits corrugated and smoothwall cables
- Saves space on crowded towers, rooftops, and other structures
- Installs 1-1/4 inch and 1-5/8 inch cables three high
- Installs 1/2 inch and 7/8 inch cables four high
- Reduces material and installation costs
- Fast, easy attachment

Part Number	Cable Size	Description
SSH-12-4	1/2"	SnapStak Hanger Kit for 1/2 in coaxial cable, with reinforcement bar, four stack capability
SSH-78-4	7/8"	SnapStak Hanger Kit for 7/8 in coaxial cable, with reinforcement bar, four stack capability
SSH-114-3	1-1/4"	SnapStak Hanger Kit for 1-1/4 in coaxial cable, with reinforcement bar, three stack capability
SSH-158-3	1-5/8"	SnapStak Hanger Kit for 1-5/8 in coaxial cable, with reinforcement bar, three stack capability
SSHR-10	1/2"–1-5/8"	SnapStak Hanger Reinforcement Bar, kit of 10
SSHAK-3812		SnapStak hanger kit for RET cable or 3/8 in braided cable
SSHA-38		Insert, adapts 1/2 in snap in hanger to RET cable or 3/8 in braided cable

United States Patents: 6,345,543, 6,899,305, and 6,161,804.
 Other patents pending.

Snap-In Hangers

Attachment with No Hardware!

Andrew Snap-In hangers provide quick and easy attachment in all types of weather. The hangers snap directly into holes in the tower support members. Installation time and costs are substantially reduced. These hangers feature cable gripping tabs to prevent cable slippage, and are constructed of heavy gauge stainless steel for high strength and excellent corrosion resistance. Waveguide versions include a heavy UV resistant rubber insert to secure the elliptical waveguide.

Part Number	Description
206706A-6	For 5/8 in cable
206706A-5	For 2-1/4 in cable
EWSH-52	For EW52 waveguide
EWSH-63	For EW63 waveguide
EWSH-64	For EW64 waveguide
EWSH-77	For EW77 waveguide
EWSH-90	For EW90 waveguide
EWSH-127A	For EW127A waveguide
EWSH-132	For EW132 waveguide
EWSH-180	For EW180 waveguide
EWSH-220	For EW220 waveguide
EWSH-240	For EW249 waveguide



SnapStak hanger kits include reinforcer bar to enable higher stack height.



Cable Installation Accessories

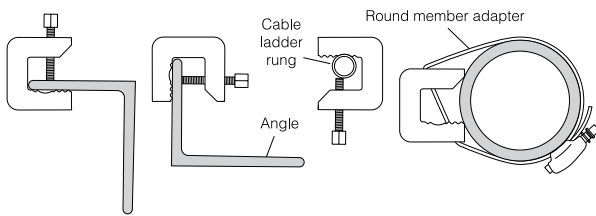
Cable Hoisting and Attachment

Universal Snap-In Adapter

The universal snap-in adapter is a versatile device for securing coaxial cable hangers to structures such as communications towers, rooftops, buildings and water towers.

The universal snap-in adapter secures coaxial cable to any round or angle tower members where pre-punched holes are not easily accessible. The adapter has a pre-punched 3/4 inch hole that allows the installer to mount cable hangers such as Andrew SnapStak™ snap-in hangers to wireless communications towers or other structures. Stainless steel construction for long life.

Universal Adapter Applications



Part Number	Description
UA-3	Universal snap-in adapter, kit of 10

Universal Angle Adapter Insert

Insert transitions the universal adapter's 3/4 inch to a 3/8 inch hole diameter, which allows the use of standard hangers.

Part Number	Description
UAAI	Universal angle adapter Insert, kit of 10



Each part sold separately

Snap-In Tower Standoffs

For mounting snap-in hangers to round support members. Adapter is designed with 3/4 inch pre-punched hole. Adapter provides 2-1/2 in (60 mm) standoff. All parts are stainless steel or galvanized, kit of 10.

Part Number	Member Diameter, in (mm)
STS3-12	1-2 (25-50)
STS3-23	2-3 (50-75)
STS3-34	3-4 (75-100)
STS3-45	4-5 (100-125)



SnapStak™ Hanger Tool

Specially designed pliers make installation and removal of SnapStak snap-in hangers extremely easy. The spring loaded pliers are designed with a hook that holds and spreads the hanger open to slip easily over the cable. Serrated pads then squeeze the hanger together for effortless insertion into the mounting structure. Insulated handle and a lanyard hole make it easy to hang on to.

Part Number	Description
SHT-4	SnapStak hanger tool, quantity 1



Cable Installation Accessories

Cable Hoisting and Attachment

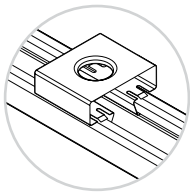
Anchor Rail Adapter

Anchor rail adapters make cable installation fast, secure, and neat.

These one-piece, one-size, self-contained anchor rail adapters require no tools and snap into common strut or anchor rail systems, such as UniStrut[®] Metal Framing. The 3/4 inch hole accepts common snap-in hangers. Adapters can be used for horizontal or vertical cable to produce neatly aligned installations on large poles, smokestacks, rooftops, walls, or any support structure.

United States Patent: 7,090,174. UniStrut is a registered trademark of the UniStrut Corporation

Part Number	Description
ARA-22	Anchor rail adapter for 0.86 in (22 mm) rails (North American standard), kit of 10



Universal Snap-In Bracket

These galvanized steel brackets are designed to work on both angle and round members. They are pre-punched with 3/4 inch holes to hold snap-in hangers or standard hangers.

Part Number	Description
SS-TB2550	Universal snap-in bracket, for 1-1/2 in to 5-9/16 in round member 2-1/2 in to 5 in angle member. Accommodates six snap-in or standard hangers.
SS-TB6080	Universal snap-in bracket, for 6 in to 10-3/4 in round member 6 in to 8 in angle member. Accommodates six snap-in or standard hangers.



Cluster Support Bracket

The cluster support bracket is a versatile means to support multiple runs of coaxial cable in virtually any application. The oval design allows coaxial cable to be run inside and outside of the bracket, which maximizes its capacity. Each bracket features 3/4 inch holes to accommodate snap-in hangers and 3/8 inch holes for butterfly hangers using standard 3/8 inch hardware. The cluster support bracket supports seven runs of coaxial cable. Sold in units of one, U-bolt hardware sold separately.

Part Number	Description
CS-B	Cluster support bracket with U-bolt for 2-3/8 in round member attachment



Snap-In Adapter Bracket

This bracket is used in conjunction with WRAPLOCK[®] and is used on large, round members, water towers, or outside of a monopole. The brackets slide on the WRAPLOCK and hold up to six runs of coaxial cable. You can use multiple brackets for the number of runs required for your system. The galvanized steel bracket supports both standard hangers and snap-in hangers. Accommodates six runs of snap-in hangers and four runs of click-on hangers.

WRAPLOCK is a trademark of Hanler Corporation

Part Number	Description
RM-USBG 12395-1	Snap-in adapter bracket, kit of 10 Stainless steel WRAPLOCK, 100 ft, with fasteners



PVC Roof Sleeper

Support rooftop coaxial cable runs using the snap-in PVC roof sleepers. PVC roof sleepers are pre-punched with 3/4 inch holes to accommodate snap-in hangers. Sleepers are made of a gray 4 in (102 mm) x 4 in (102 mm), UV-resistant PVC material.

Part Number	Description
MT-F1598	4 run, 22 in (559 mm) length
MT-F1599	8 run, 32 in (810 mm) length
MT-F1600	12 run, 43 in (1102 mm) length



Cable Installation Accessories

Cable Hoisting and Attachment

Snap-In Adapter Block

This snap-in adapter block is designed to accommodate a snap-in hanger on each side of the block. You can attach this to the tower with our standard angle adapters or tower standoffs. Stainless steel construction.

Part Number	Description
SA-38	Snap-in adapter block, kit of 10



Click-On Hangers

Click-On Hangers—Install Cable with One Easy “Click”

Stackable click-on hangers install in just minutes and provide a perfect fit that gives your telecommunications system a compact, orderly cable installation, especially in confined spaces.

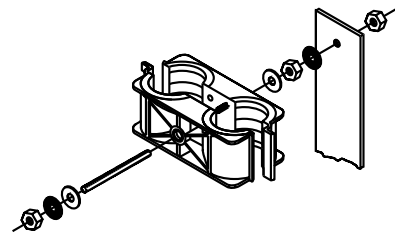
Available in either single or double versions, click-on hangers are manufactured of tough UV-resistant material and set the standard for durability, simplicity of installation, and cost effectiveness. They are attached with threaded rod (sold separately) and can be stacked up to three high. Fits corrugated and smoothwall cables.

United States Patent: 5794897.

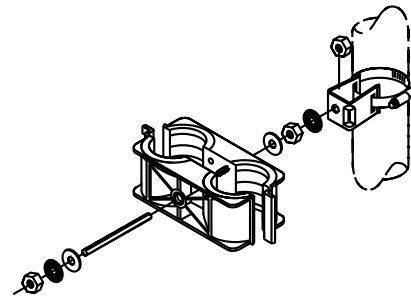
Double	Single	
Part Number	Part Number	Description
L4CLICK	L4SCLICK	Click-on hanger for 1/2 in coaxial cable, kit of 10
L45CLICK	—	Click-on hanger for 5/8 in coaxial cable, kit of 10
L5CLICKB	L5SCLICKB	Click-on hanger for 7/8 in coaxial cable, kit of 10
L6CLICK	L6SCLICK	Click-on hanger for 1-1/4 in coaxial cable, kit of 10
L7CLICK	L7SCLICK	Click-on hanger for 1-5/8 in coaxial cable, kit of 10



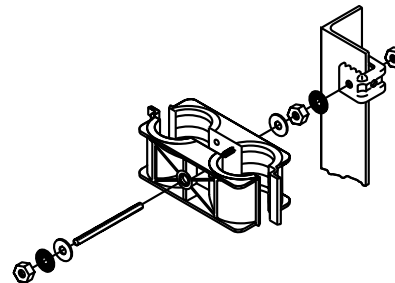
Part Number	Attachment Hardware
243684	Compact angle adapter, see page 15 for details
244350	Ceiling adapter, kit of 10
	Round member adapter (various sizes) see page 15



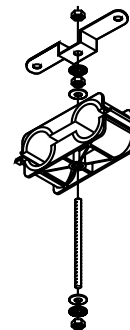
Flat Member Attachment



Round Member Attachment



Angle Adapter Attachment



Ceiling Adapter Attachment

Cable Installation Accessories

Cable Hoisting and Attachment

Click-On Hanger Hardware Kits

Click-on hanger attachment hardware is constructed of 3/8 inch stainless steel for durability. Select hardware length according to planned hanger stack height. Each kit contains 10 threaded rods, 30 nuts, 40 flat washers and 20 lock washers. **Note:** Click-on hangers accommodate two runs of cable and can be stacked up to three deep to handle up to six runs.

Part Number	Stack Height (# of hangers)	Cable Size	Rod Length in (mm)
Imperial			
243095-9	1	1/2" or 7/8"	3.75 (95)
243095-5	2	1/2" or 7/8"	5.40 (137)
243095-1	3	1/2" or 7/8"	7.00 (177)
243095-10	1	1-1/4" or 1-5/8"	4.75 (121)
243095-6	2	1-1/4" or 1-5/8"	7.25 (184)
243095-2	3	1-1/4" or 1-5/8"	9.75 (248)



TIP!

Multi-run hangers are the best choice for installing cables where space is very limited on crowded towers.

Miniature Click-On Hangers

Fast, easy installation for small cables

Now installing small cables into hangers is accomplished in one easy click with miniature click-on hangers.

Each compact, miniature click-on hanger accommodates two runs of cable. Miniature click-on hangers are compact and stackable, making it easy to install several runs of cable in confined spaces.

Miniature click-on hangers are cost effective and durable. With flexible gripping ribs, the hanger provides secure support on a range of cable sizes, and indexing on the hanger body helps align cables during installation.

Specifically designed to accommodate small corrugated coaxial cables, elliptical waveguide, and braided cable runs, miniature click-on hangers provide a perfect fit for your installation. Hangers are packed in kits of 10. Attachment hardware, made of anti-corrosion coated metal for long service life, is sold separately in kits of 10.

United States Patent: 7,007,900.

Select hardware by intended hanger stack height.

Part Number	Description
68MCLICK	Click-on hangers for 6–8 mm cable; FSJ1A, CNT-240, CNT-300
912MCLICK	Click-on hangers for 9–12 mm cable; LDF1, EFX2, FSJ2, LDF2, CNT-400, EW380
1316MCLICK	Click-on hangers for 13–16 mm cable; FSJ4, LDF4-50A, CNT-500, CNT-600

Part Number	Description
252026-10KT	Mini angle adapters, M8 tap
252027-10KT	Single stack hardware for mini click-on hangers, M8 thread
252028-10KT	Double stack hardware for mini click-on hangers, M8 thread
252029-10KT	Triple stack hardware for mini click-on hangers, M8 thread



Cable Installation Accessories

Cable Hoisting and Attachment



Standard Hangers

Standard Hangers and Hardware—For Security and Flexibility

Standard hangers are designed to attach smoothwall and corrugated coaxial cables and waveguide securely to just about any type of support structure. The clamp locking bolt and nut are pre-assembled and captivated to minimize installation labor. They are drilled for 3/8 inch or M10 mounting hardware and feature slots for round member adapter clamps. See pages 15–17 for accessories to adapt these hangers to most tower configurations.

Please refer to Appendix 5 for specific recommendations.

Hanger Part Number	Cable Size	Photo Reference
43211A	3/8"	A
43211A	1/2"	A
42396A-9	5/8"	B
42396A-5	7/8"	B
42396A-1	1-1/4"	B
42396A-2	1-5/8"	B
42396A-4	2-1/4"	B
31766A-11	3"	C
31766A-10	4"	C

Hanger Part Number	Waveguide Size	Photo Reference
31766A-9	EW17	C
31766A-10	EW20	C
31766A-11	EW28	C
42396A-4	EW37	B
42396A-16	EW43	B
42396A-8	EW52	B
42396A-7	EW63	B
42396A-1	EW64	B
42396A-11	EW77	B
42396A-5	EW85	B
42396A-5	EW90	B
42396A-9	EW127A	B
42396A-9	EW132	B
43211A	EW180	B
43211A	EW220	B
43211A	EW240	B

Hardware Sets, Kit of 10

Kits include 3/8 inch fillister-head bolts, lock washers, and nuts for attachment of standard hangers to drilled tower members.

Part Number	Length
31769-5	3/4 in (19 mm)
31769-1	1 in (25 mm)



Additional Mounting Hardware

Threaded Rod Support Kit for Standard Hangers.

Use to mount hangers away from supporting structure, under cable bridge, and inside equipment room. Includes 3/8 inch diameter threaded rod, galvanized ceiling mounting plate, nuts, and washers. Attach to angle tower members with 31768A angle adapters. Attach to round tower members with 30848 series tower standoffs. All components are stainless steel, except ceiling mounting plate.

Part Number	Rod Length, in (mm)
Kit of 5	
31771-4	12 (305)
31771-6	24 (610)
31771-10	36 (915)



Cable Installation Accessories

Cable Hoisting and Attachment

Compact Stainless Steel Angle Adapters

Compact, lightweight, high quality stainless steel angle adapters provide a cost saving option to standard adapters for many wireless systems that use HELIAX[®] coaxial cable. These compact angle adapters are suitable for use with single runs of HELIAX cable up to 2-1/4 inch in diameter. When used with our stackable click-on hangers, they can accommodate up to six runs of 1-5/8 inch cable or smaller cable. Includes 3/8 inch hanger attachment hardware, kit of 10.

Part Number	Description
243684	Compact angle adapter, 3/8 in thread, kit of 10



Angle Adapter

Stainless steel, kit of 10. For mounting 1/2 inch to 4 inch cable hangers to angle tower members up to 7/8 in (22 mm) thick. Includes hanger attachment hardware.

Part Number	Description
31768A	Standard angle adapter, 3/8 in thread, kit of 10



Round Member Adapter

Stainless steel clamps to mount 1/2 inch to 4 inch cable hangers to round support members. Two each are needed for 3 inch and 4 inch cable hangers, kit of 10.

Part Number	Member Diameter, in (mm)
31670-1	1-2 (25-50)
31670-2	2-3 (50-75)
31670-3	3-4 (75-100)
31670-4	4-5 (100-125)
31670-5	5-6 (125-150)
31670-6	6-8 (150-200)



Tower Standoff

Adapters with round member clamps and hardware for 1/2 inch to 4 inch hangers. They are prepunched for SnapStak hangers and include a tapped insert to accept standard hangers. All parts are stainless steel or galvanized, kit of 10.

Part Number	Member Diameter, in (mm)
TTS3-7515	0.75-1.5 (20-40)
TTS3-153	1.5-3.0 (40-75)
TTS3-34	3-4 (75-100)
TTS3-45	4-5 (100-125)
TTS3-56	5-6 (125-150)



Cable Installation Accessories

Cable Hoisting and Attachment

Clamp Head

Part Number	Description
MF39901-10	Clamp head, kit of 10



Nylon Cable Ties For Jumper Cable Attachment

Cable ties secure cable bundles where space is limited. They are an excellent choice for organizing jumper cables within and between radio cabinets and for bundling jumper cables. Nylon cable ties provide support for small diameter cable 1/4 inch to 1/2 inch. Typical applications include securing jumper cables in buildings and along horizontal antenna mounting arms.

Part Number	Description
40417	Nylon cable ties, 5/16 in wide 14.5 in long, kit of 50



45° Adapter

Use with angle adapter and threaded rod support kit to place a hanger at a waveguide bend, 3/8 inch thread, kit of 10.

Part Number	Description
42334	45 degree adapter, kit of 10

